

ABSTRACT

Digital transmission method of the error-correcting coding type

The present invention concerns a digital transmission method of the error-correcting coding type which comprises, before a step of transmitting on a channel, a coding procedure comprising at least one puncturing step, and, after said transmission step, a decoding procedure comprising at least one depuncturing step, said coding procedure, applying a given coding scheme, generating a coded information item representing, with a certain redundancy, said useful information item and said decoding procedure estimating said useful information item by correcting transmission errors. According to the invention, this digital transmission method also comprises a step of observing the transmission conditions and a puncturing scheme selection step (2) for selecting, according to said at least one parameter, an optimum performance puncturing scheme amongst a plurality of predetermined puncturing schemes, the overall efficiency of said coding step and said puncturing step being a constant efficiency. The method also comprises a coding scheme adaptation step (3) which checks whether said puncturing scheme selected by said puncturing scheme selection step (2) leads to the full puncturing of at least one output information item of a coding step, amongst a plurality of coding steps whose association in parallel forms said coding scheme, and which, if applicable, modifies said coding scheme so that said coding step is no longer used.

Fig. 1